Amendments to the Claims:

This listing will replaces all prior versions, and listings, of the claims in the application:

Listing of claims:

1-12. (canceled)

13. (currently amended) A device for evaporating samples in sample vessels, each of said vessels being provided with at least one filling opening, said device comprising

holding means for simultaneously holding several sample vessels, and

connection means comprising plural channels directly connectable to the filling openings~~, by means of which the filling openings~~ of the sample vessels individually or in groups whereby the sample vessels are hermetically connectable to means for producing a vacuum and thereby may be evacuated.

14. (currently amended) A device according to claim 13, wherein the device comprises drive means for producing a vortex movement, and ~~that~~ the connection means ~~are designed in a manner such~~ comprise flexible components so that the holding means and the sample vessels are movable independently of the means for producing a vacuum~~, that in particular~~ and ~~the connection means comprise flexible components~~.

15. (previously presented) A device according to claim 13, wherein the connection means comprise at least one connection plate which is sealingly pressable onto the filling openings of the sample vessels, or is suctioned by the vacuum, and which is provided with connection paths for connecting the filling openings to the connection of the means for producing a vacuum.

16. (previously presented) A device according to claim 15, wherein the connection plate comprises longitudinal channels which extend from the lower side, able to face the sample vessels, of the connection plate and which are placeable aligned onto the filling openings.

17. (previously presented) A device according to claim 16, wherein the longitudinal channels extend through the connection plate up to the upper side distant to the lower side, wherein the upper side is provided with a least one deepening which communicates with the longitudinal channels.

18. (previously presented) A device according to claim 17, wherein between the exit opening of the longitudinal channels and the deepening there are formed obstacles which prevent the flowing back of condensate into the sample vessels, that in particular the level of the exit opening lies above the level of the base of the deepening.

19. (previously presented) A device according to claim 18, wherein the connection plate compresses a connection opening which communicates with a deepening and which is connectable or connected to the connection.

20. (previously presented) A device according to claim 18, wherein the connection means comprise a sealing plate which for sealing the deepening is placeable onto the connection plate.

21. (previously presented) A device according to claim 20, wherein the sealing plate is formed heatable, and that the sealing plate is manufactured of a transparent material,

in particular of glass.

22. (previously presented) A device according to claim 20, wherein the sealing plate and/or the connection plate comprise aligning means for centering and firmly holding the connection plate with respect to the holding means.

23. (previously presented) A device according to claim 13, wherein the holding means and/or the connection means are adaptable to a differing number and size of sample vessels, in particular are exchangeable.

24. (previously presented) A method for precessing, in particular for evaporating samples simultaneously held in several sample vessels, in particular with a device according to claim 13,

in which method the samples in the sample vessels may be heated and in which the sample vessels are preferably moved, wherein the filling openings of the sample vessels individually or in groups are gas-tightly connected to means for producing a vacuum, and with this are evacuated.